

# PATENT ABSTRACTS OF JAPAN

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(71)Applicant : TOPPAN PRINTING CO LTD

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(72)Inventor : OTA KAZUHIKO

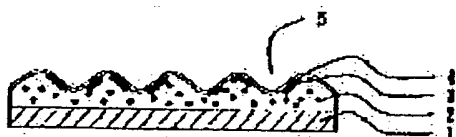
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## (54) DECORATIVE MATERIAL AND ITS MANUFACTURE

(57)Abstract:

**PROBLEM TO BE SOLVED:** To provide a method for making a decorative material which does not generate harmful gas such as hydrogen chloride during incineration and has good embossment reproducibility and pattern printability and its manufacturing method.

**SOLUTION:** In a decorative material, a foamed resin layer 2, a pattern layer 3, a transparent thermoplastic resin film 4 of polyolefin or ethylene-vinyl alcohol copolymer are placed in sequence on a backing 1, and unevenness is given from the surface to the resin layer 2. A heat melted polyolefin composition containing a foaming agent is extruded between the surface of the backing 1 and the printing surface of the film 4, and simultaneously with the expansion and the sticking, unevenness is given from the non-printing surface of the film 4, and cooling is implemented.



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## LEGAL STATUS

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## MEANS

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[Means for Solving the Problem] this invention offers the makeup material which it comes to prepare the transparent thermoplastics film which consists of the foaming resin layer, the pattern layer, olefin system resin, or ethylene vinyl alcohol copolymerization resin which consists of an olefin system resin on a base material at this order, it applies to the aforementioned foaming resin layer from a front face, and irregularity is given, and is characterized by the bird clapper in order to solve this technical problem.

[0006] Moreover, the manufacture method of the makeup material characterized by giving irregularity and cooling from the printed side of a transparent thermoplastics film is offered at the same time it sticks extruding with an extruder the olefin system resin constituent of the foaming agent content which carried out heating fusion between a base-material front face and the printing side of the transparent thermoplastics film which gave printing, and making it foam to it as the manufacture method.

[0007]

[Embodiments of the Invention] Hereafter, based on a drawing, it explains per gestalt of operation of this invention. An example of the structure of the cross section of the makeup material of this invention is shown in drawing 1. Irregularity 5 which it comes to prepare the transparent thermoplastics film 4 with which the foaming resin layer 2 which consists of an olefin system resin, and the pattern layer 3 were printed by the rear face on the base materials 1, such as fire-resistant lining paper, and attains to the foaming resin layer 2 from a front face is given.

[0008] As an olefin system resin used for the foaming resin layer 2 in this invention, these mixed resins can be used for a high-density-polyethylene resin, a low-density-polyethylene resin, polypropylene resin, and an ethylene-vinyl acetate copolymer row.

[0009] In order to use this resin as a foaming resin, the method of making a foaming agent contain, making it foam, and making it have a foam inside is possible. As a foaming agent,

mentioned layers between the embossing cooling rollers and rubber covered rolls which prepared embossing in the front face, and giving sticking by pressure and embossing simultaneously.

[0019] Even if dirt adhered to the front face, without wearing a pattern out since the obtained makeup material has the film layer of polyethylene in a front face, it became what has the outstanding performance that it is easily removable etc. Moreover, even if destroyed by fire, there was no generating of chlorine gas, hydrogen chloride gas, etc. of detrimental gas.

[0020] Makeup material was created like the example 1 except having used the 25-micrometer transparent ethylene vinyl alcohol copolymerization resin film (Kuraray Co., Ltd. make : "the Eval film") instead of the <example 2> aforementioned micrometers [ 25 micrometers ] polyethylene EREN film. Especially the obtained makeup material was excellent in surface resistance to contamination.

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## DESCRIPTION OF DRAWINGS

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### [Brief Description of the Drawings]

#### Drawing 1

It is explanatory drawing showing an example of the structure of the cross section of the makeup material of this invention.

#### Drawing 2

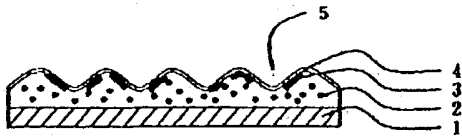
It is explanatory drawing showing an example of the process of the manufacture method of the makeup material of this invention.

### [Description of Notations]

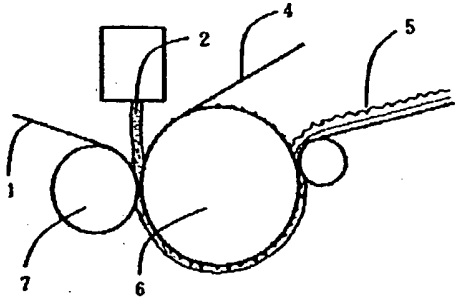
1 -- Base material 2 -- Foaming resin layer 3 -- Pattern layer 4 -- Transparent thermoplastics film

5 -- Embossing 6 -- Cooling embossing roll 7 -- Rubber covered roll

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